

2023 PASTURE LEASING ARRANGEMENTS IN KANSAS

Xianghong Li
And
Leah J. Tsoodle

October 2023

Department of Agricultural Economics

Kansas State University

Introduction

Pasture land is Kansas' second largest agricultural land use. As a resource, grazing land supports the livestock industries, provides habitat for wildlife, and provides surface water to streams. The 2017 Census of Agriculture showed Kansas pasture land totaled 14,852,685 acres, and the total sales of cattle and calves in Kansas was \$10.91 billion, accounting for 58.1% of Kansas' total market value of agricultural products sold.¹ Given these statistics, understanding Kansas pasture use and practices is vital to the future of Kansas agriculture.

The Land Use Survey Office (LUSO) in the Department of Agricultural Economics at Kansas State University (KSU), with support from the Kansas Department of Revenue, conducted the 2023 Kansas Pasture Survey to collect information on pasture land use and practices. LUSO conducted the survey for both native and tame pasture uses in 2023. The survey included questions on grazing outlook, pasture availability, pasture leasing rates, and charges for fence building. The results presented in this report come from 316 usable responses from this survey, and some of the results also include 131 responses from the 2023 Bluestem Pasture Survey.² About 48% of the respondents were pasture landowners, 33% of the respondents were livestock owners, and 19% were livestock caregivers. This report summarizes the information collected from the surveys on current Kansas pasture lease arrangements and fence information.³ This report is intended to provide timely information on Kansas pasture use and practices to interested stakeholders, including landowners, managers, operators, extension personnel, consultants, lenders, and policy makers.

The type of pasture differs across the nine crop reporting districts (CRDs) of Kansas for multiple reasons, including differences in soil and rainfall.⁴ Within Kansas, pasture land is classified into two categories, native and tame pasture. These are commonly referred to as rangeland and improved pasture, respectively. Native pasture is rangeland that contains grasses native to the region, without improvement through agronomic practices. The three native categories of pasture covered in the survey are tallgrass prairie, mixed grass prairie, and shortgrass prairie. Tame pasture is primarily non-native grass species and legume species that are planted and managed with agronomic practices (seeding, fertilizer, etc.). The major non-native species are smooth brome grass, tall fescue, and Bermuda grass. More recently, native species have been planted using similar practices with similar performance characteristics.

Pasture Lease Arrangements

The National Agricultural Statistics Service-Kansas office (NASS) divides Kansas into nine CRDs, numbered 10 through 90 (Figure 1), and these CRDs are used to group survey responses. According to survey respondents, Kansas pasture condition varies across the CRDs in 2023 (Table 1a). Pasture condition in the western region of the state (CRD 10, 20, & 30) was regarded the worst in the state. The majority of the pasture in the western region was in very poor or poor condition in 2023. Pasture in the eastern third of the state (CRD 70, 80, & 90), on

¹ Data source: 2017 Census of Agriculture, USDA.

https://www.nass.usda.gov/Publications/AgCensus/2017/index.php#full_report.

² The information presented on pasture conditions, water sources, range burning, and respondents' role in pasture leases combines responses from both the 2023 Kansas Pasture Survey and the 2023 Bluestem Pasture Survey. All other results are based solely on responses to the 2023 Kansas Pasture Survey.

³ For questions and comments, please contact the Land Use Survey Office at 785 532 3509 or Leah Tsoodle at ltsoodle@ksu.edu.

⁴ Please refer to "Crop Profile for Pasture/Rangeland in Kansas (USDA NIFA, <https://ipmdata.ipmcenters.org/documents/cropprofiles/KSpasture.pdf>)" for detailed discussion on Kansas pasture.

the other hand, was in relatively better condition. More than 85% of the pasture in NE-70 and EC-80 was considered to be in adequate or better condition this year. Kansas pasture condition in 2023 was reported to be worse than the condition in 2019 (Tables 1a & 1b). About 11% of the pasture in the state was in very poor or poor condition in 2019. However, about 40% of the state pasture was in very poor or poor condition in 2023. Extended lack of rainfall and warmer temperatures contributed to the deterioration of Kansas pasture conditions. In the eastern region, ponds were the leading source of water supply for livestock in pastures in 2023, followed by stream or spring-fed or spring development. The main sources of water supply in the western region of the state were electric-powered well, well, windmill, or solar powered. Ponds were also the main source of water supply in the central region, followed by stream or spring-fed and wells. Range burning occurred mostly in the eastern CRDs, NE-70, EC-80, and SE-90; pasture in the western region was seldomly burned, according to respondents. In 2023, burning happened as early as March 1st, and more than 80% of the burning took place in April. The dry conditions probably reduced pasture burning in 2023.

The responses to the 2023 Kansas Pasture Survey showed that about 19% of the respondents were involved in pasture leases for activities other than livestock (Table 2). The percentage of leases for purposes other than livestock increased from north to south in the western and eastern regions. About 33%, the highest in the state, of the respondents in SW-30, leased for activities other than livestock. Hunting and haying were the two main activities other than livestock; wind-solar leases were another activity written in by respondents. The average per acre rent for hunting was \$11.29 in 2023, while the per acre rent for haying averaged \$39.17. For respondents who had tame pasture, 22.33% of them reported that they harvested hay to sell off of that pasture. About 33% of the respondents in the state had contracts where the tenant and landlord were related. About 45% of the leases in the state were oral, rather than written, leases.

The percentage of leasing arrangements involving each type of pasture, rangeland and improved, in 2023 is presented in Table 3. In the western third of Kansas, average annual rainfall ranges from 16 to 20 inches, and the growing season ranges from 150 days in the northern CRD to 185 days in the southern CRD. Given those conditions, short grass prairie dominates the western rangeland, CRDs 10-30. The central third of the state, CRDs 40-60, has relatively more rainfall and a longer growing season. Thus, mixed grass prairie is the largest share of the rangeland in this region. In the eastern third of Kansas, the average annual rainfall is between 30 and 42 inches, and the growing season is between 170 days in the north to more than 200 days in the southern part of the region. Tall grass prairie dominates EC-80 and SE-90. In NE-70, tame grass pasture takes relatively large share of the pastureland, followed by tall grass prairie.

Kansas pasture leases involve different types of contracts. In most of the western and central CRDs of Kansas, partial summer contracts were less popular than full summer or full year contracts in 2023, for both native and tame pasture (Table 4).⁵ The majority of leases for native pasture were full summer leases in four of the nine CRDs: NW-10, WC-20, NC-40, and C-50. The majority of native acres in CRDs SW-30 and SC-60 were under full year contracts. Partial summer contracts were more common for native pasture in the eastern regions of Kansas. In Northeast-70 and East Central-80 CRDs, about 63% and 66% of the native acres were under partial summer contracts, respectively. The high proportion of acres under partial summer contract in those areas is, primarily, because early double-stocking is a common practice there.

⁵ Full summer season contract is defined as a lease with about 180 grazing days. Partial summer season contract includes both short summer season contract (about 90 grazing days) and 3/4 summer season contract (about 120 grazing days).

Moving from north to south, the percentage of native grass acreage under full year contracts generally increased. Tame pasture did not mirror that trend. The majority of tame acres in the western region of the state were under full summer contracts. Most tame acres in NE-70 and EC-80 were also under full summer contracts. In the central region, NC-40, C-50, and SC-60, most tame acres were contracted for the full year. For the state, about 37%, 17%, and 46% of total native pasture was under full summer, partial summer, and full year contracts, respectively. In 2023, about 48%, 12%, and 34% of total tame pasture was under full summer, partial summer, and full year contracts for the state, respectively.

The reported stocking rate acreage for both cow/calf pair and stocker were higher for native pasture relative to tame pasture in all districts (Table 5). The stocking rate acreage was higher in the western region of the state than in the eastern region of the state. For a cow/calf pair, the average stocking rate for native (tame) pasture for the state was 9.67 (7.19) acres. The stocker average stocking rate was 5.66 acres and 3.49 acres for native and tame pasture, respectively.

Cash Rents and Pasture Size

The rental value of the pasture land in Kansas was highly correlated with temperature and rainfall patterns. In Kansas, natural forage production increases as rainfall increases and temperature decreases. Increased grass production potential influences rental values. Tables 6a and 6b shows the distribution of cash rents for both native and tame pasture by crop reporting district in 2023 and 2019. In general, cash rent increased moving from west to east and from south to north. Corresponding to the rising livestock prices, the rental rates of native pasture increased in 2023 relative to the values in 2019 in all nine CRDs. The rental rates of tame pasture in 2023 were also higher than the corresponding 2019 rates in all reported CRDs, except for C-50 where the tame pasture average rate decreased from 2019. Increases in native pasture rental rates ranged from 2.85% in SE-90 to 43.37% in WC-20. Among the five crop reporting districts where cash rent changes can be computed for tame pasture, the increases ranged from 0.26% in SE-90 to 27.23% in NE-70, and the average increase for the state was 10.10%. The combined rate is the simple average of all native and tame responses to the cash rent question. The combined rate increased 11.18% for the state from 2019 to 2023.

Across the state, tame pasture rent is higher than native pasture. The average tame/native rent ratios in Table 6b illustrate that in all crop reporting districts, except for East Central-80, cash rents of tame pasture showed some premium over those of native pasture. Tame pasture rent was, on average, 39.35% more than native pasture in 2023. The higher rental value of the tame pasture is partially explained by the higher costs and more intense management requirements of tame pasture. The difference in rental value between tame and native pasture has also changed over the years. The premium of tame pasture rental rate over native pasture rental rate in 2023 decreased compared to the premium in 2023 in three CRDs, NC-40, C-50, NE-70, and EC-80.

Crop residue was leased for grazing either on a dollar per acre basis or on a dollar per head per day basis. The two commonly reported crop residues for grazing were corn and milo (Table 7). The rent for leasing corn residue averaged \$9.67/acre or \$0.99 per head per day. The average rent for milo residue was \$9.93/acre or \$1.01 per head per day in 2023, slightly higher than the average rent for corn residue.

Table 8 shows the mode pasture size by crop reporting district. The mode pasture size was 160 acres for native pasture in 2023 in five of the nine CRDs. The typical sizes of tame pasture were relatively smaller than the corresponding native pastures. The relatively larger

mode size of native pasture reflects the management intensive nature of tame pasture. Compared with survey responses in 2015, the mode pasture size in 2019 and 2023 was larger in several districts. This change may reflect the trend in Kansas toward fewer agricultural entities that are managing more acres. In addition, about 9% of the total respondents thought that his/her area native pasture lease rates would decrease as pasture size increased. All respondents thought that the area lease rates of tame pasture would not decrease as pasture size increased.

Fence Requirements and Characteristics

In Table 9, the average feet of fence per acre is presented for both native and tame pastures with 2023 and 2019 data for comparison. To be consistent with the previous data, the feet of fence per acre is half of the amount reported in the survey because many pasture lots share boundary fences, and a landlord would be responsible for, on average, half of the fencing enclosing any given pasture. No systematic pattern is shown across crop reporting districts, probably because the length of fence required per acre of pasture is affected by many factors, including pasture size, pasture shape, and the number of cross fences. As the pasture size increases, the feet of fence per acre decreases, and as pasture size becomes more irregular, the feet of fence per acre increases. As a result, we would expect smaller pastures to have a higher average feet of fence per acre; however, a larger pasture may still have a higher average, if the larger pasture is irregularly shaped. The average feet of fence per acre for tame pasture in 2023 increased from 2019. The changes in the average feet of fence per acre for native pasture were not as uniform as the changes for tame pasture. The average feet of fence per acre decreased from the 2019 values in six crop reporting districts. In SC-60 and NE-70, the averages for feet of fence per acre in 2023 were higher than the 2019 values. Further research might reveal additional reasons for the change.

Most of the respondents' most recent boundary fences had been in place for less than 10 years. More than 30% of the respondents' recent new boundary fences were built after 2019 in 7 crop-reporting districts, except for SW-30 and SC-60. District mode typical fence data are presented in Tables 10a & 10b. The most prevalent wire for Kansas pasture fencing is barbed (Table 10a). In NW-10, WC-20, and NC-40, 4 strand fences were typical, and 5 strand fences were the mode in all other crop reporting districts. Treated wood posts were used most often in NW-10. All steel posts were common in C-50, SC-60, EC-80 and SE-90. In all other crop-reporting districts, a combination of wood and steel posts was most commonly used for fences. Typical post spacing ranged from 12 to 16 feet. Most of the pasture is not permanently cross fenced, regardless of its size. The typical number of steel gates ranged from 1 to 4 across all crop reporting districts. The typical number of wire gates were 1 or 2 in all crop reporting districts. Given typical maintenance, pasture fence has a useful life that can reach 50 years (Table 10b).

Pasture Maintenance Costs and Landlord's Share of Expenses

To retain the long-term asset value of pasture, the land needs to be maintained. Table 11 lists the average costs to maintain for both native and tame pasture in 2023. Pasture maintenance costs in 2023 were reported to be higher than 2019 costs. Fertilizer costs were the leading expense for tame pasture. Costs for fence materials, labor, and brush and weed control were leading expenses for native pasture.

Although the vast majority of pasture land is leased on a cash basis, landlords participate in maintenance expenses to retain the long-term value of their asset. Tables 12a and 12b provide information on the type and percent of expenses in which landlords share with the renter.

Landlords are responsible for the majority of the fence material costs, whereas tenants took care of a large portion of fence labor costs and maintenance. Landlords also provide most of the chemicals for brush and weed control, while application costs are mainly paid by the tenants. Moreover, landlords pay more of the water supply costs, and fertilizing is primarily paid by the tenants.

Conclusion

Kansas pasture land is very important for the Kansas livestock industry and state economy as a whole. The 2023 pasture survey suggests that the condition of the pasture land in Kansas was worse than in 2019, due partly to climate change and drought conditions. The pasture land rental market can be affected by changes in farm policy, commodity prices, technology, and many other factors. The cash rents for both native pasture and tame pasture have increased since the 2019 Pasture Survey. The changes in the pasture rent can be partly attributed to the changes in commodity prices and maintenance cost. Changes in the traditional arrangements present in a region may also help explain changes in rental rates. Although traditional arrangements, which have been in place for lengthy time periods, may not be affected by changes in markets, legislation, or farming practices (Albright et al, 1996), extension specialists contend that, relatively speaking, tradition is changing rapidly in recent years.

Most related K-State Research and Extension publications pertaining to pasture-land leasing arrangements can be found at www.AgManager.info . Below are some of the older and current publications.

Buller, et al. "Economic Evaluation of Season-Long and Intensive-Early Stocking System."
Contribution number 90-274-S from KAES, 1990.

Dhuyvetter, Kevin and Glynn Tonsor. "Summer Grazing of Steers in Western Kansas."
Publication Number MF1007, Revised April 2014.

Dhuyvetter, Kevin and Glynn Tonsor. "Summer Grazing of Steers in Eastern Kansas."
Publication Number MF1008, Revised April 2014.

Dumler, Troy and Kevin Dhuyvetter. "Frequently Asked Questions: Pasture Leases in Kansas."
Publication # AM-TJD-2011.2, October 2011.

Kansas Department of Agriculture and K-State Land Use Survey Office. "Bluestem Pasture Report 2023." <https://www.agmanager.info/farm-management/land-rental-rates/bluestem-pasture-report-2023>.

O'Brien, D., "Factors Affecting Kansas Pasture Rental Rates." K-State Research and Extension, November 2000.

Schlegel, Jen and Leah J. Tsoodle. "2010 Pasture Leasing Arrangements in Kansas." Kansas State University, Department of Agricultural Economics, Manhattan, Kansas, Paper # 11-05, February 2011.

Taylor, Mykel. “2018 Kansas County-Level Land Values for Cropland and Pasture.”
<http://agmanager.info/land-leasing/land-buying-valuuing/2018-kansas-county-level-land-values-cropland-and-pasture>.

Tsoodle, Leah J., Bill Golden, and Allen Featherstone. “Determinants of Kansas Agricultural Land Values.” Selected Paper prepared for presentation at the Southern Agricultural Economics Association Annual Meeting, Mobile, Alabama, February 1-5, 2003.

Tsoodle, Leah J. and Xianghong Li. “2019 Pasture Leasing Arrangements in Kansas.”
<https://www.agmanager.info/land-leasing/land-buying-valuuing/land-use-value-research/2019-pasture-leasing-arrangements-kansas>.

USDA NIFA, Crop Profile for Pasture/Rangeland in Kansas.
<https://ipmdata.ipmcenters.org/documents/cropprofiles/KSpasture.pdf>.

USDA, 2017 Census of Agriculture State Profile.
https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Kansas/cp99020.pdf

Figure 1: Kansas Crop Reporting Districts

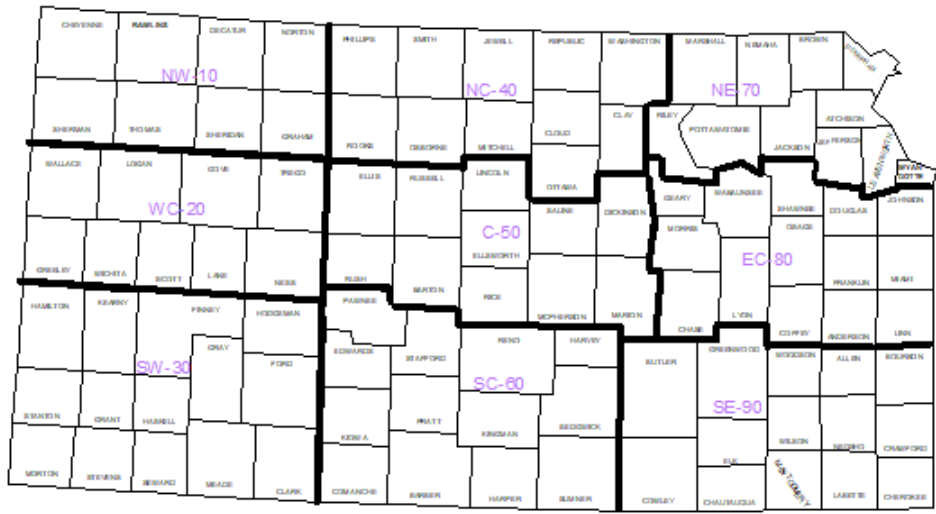


Table 1a. Condition of the Pasture, 2023

	Very poor (%)	Poor (%)	Adequate (%)	Good (%)	Excellent (%)
NW-10	45.77	23.46	17.88	12.88	0.00
WC-20	41.25	36.56	15.00	7.19	0.00
SW-30	48.00	23.15	24.23	3.08	1.54
NC-40	10.79	29.08	36.58	20.00	3.55
C-50	18.45	27.14	28.45	18.10	7.86
SC-60	26.72	30.34	32.07	9.83	1.03
NE-70	3.94	7.88	29.09	48.64	10.45
EC-80	2.86	12.08	28.89	40.87	15.30
SE-90	14.26	36.22	30.61	14.59	4.32
State	16.50	24.16	28.70	23.70	6.94

Table 1b. Condition of the Pasture, 2019

	Very poor (%)	Poor (%)	Adequate (%)	Good (%)	Excellent (%)
NW-10	1.11	1.67	52.22	26.67	18.33
WC-20	2.00	3.80	16.40	44.20	33.60
SW-30	0.50	2.25	12.25	45.50	39.50
NC-40	4.58	13.39	25.65	29.45	26.94
C-50	3.25	10.31	21.69	46.37	18.38
SC-60	5.00	10.50	12.00	47.42	25.08
NE-70	2.27	13.33	28.03	43.03	13.33
EC-80	1.33	6.65	18.06	45.30	28.66
SE-90	2.37	6.38	24.21	48.13	18.91
State	2.40	7.89	21.79	43.91	24.02

Table 2. Pasture Lease Arrangement Characteristics, 2023

	Pasture Leased for Activities other than Livestock (%)	Tame Pasture Harvested Hay to Sell (%)	Landowner is Related to Tenant (%)	Oral Lease (%)
NW-10	0.00	0.00	23.53	55.56
WC-20	20.00	50.00	50.00	30.00
SW-30	33.33	12.50	12.50	62.50
NC-40	25.00	20.00	39.29	42.86
C-50	19.05	25.00	16.67	52.63
SC-60	16.67	0.00	61.11	35.29
NE-70	13.33	46.15	26.67	28.57
EC-80	17.65	15.38	18.75	66.67
SE-90	26.67	27.78	35.48	43.75
State	19.28	22.33	32.92	45.96

Table 3. Pasture Types under Leasing Arrangements, 2023

Pasture Type Districts	Native Pasture			Tame Grass Pasture
	Tall-Grass	Short-Grass	Mixed-grass	
NW-10	6.98%	72.09%	18.60%	2.33%
WC-20	5.71%	68.57%	17.14%	8.57%
SW-30	0.00%	64.00%	32.00%	4.00%
NC-40	16.18%	22.06%	50.00%	11.76%
C-50	24.00%	10.67%	54.67%	10.67%
SC-60	11.36%	11.36%	72.73%	4.55%
NE-70	28.57%	1.59%	23.81%	46.03%
EC-80	75.00%	0.69%	14.58%	9.72%
SE-90	64.90%	1.99%	14.57%	18.54%
State	40.59%	16.05%	28.86%	14.51%

Table 4. Percentage of Pasture under Various Types of Leasing Arrangements (%), 2023

	Native Pasture				Tame Pasture			
	Full Summer	Partial Summer	Full Year	Winter	Full Summer	Partial Summer	Full Year	Winter
NW-10	84.98	0.91	13.77	0.34	100.00	0.00	0.00	0.00
WC-20	45.50	27.12	25.84	1.55	99.11	0.00	0.89	0.00
SW-30	14.37	4.51	81.00	0.12	-	-	-	-
NC-40	77.33	0.00	21.84	0.83	17.34	0.00	82.66	0.00
C-50	65.53	3.94	30.37	0.17	24.34	29.75	30.45	15.46
SC-60	16.10	0.08	83.82	0.00	17.65	0.00	82.35	0.00
NE-70	33.17	63.14	0.83	2.85	72.56	0.00	26.51	0.93
EC-80	20.71	66.13	12.58	0.58	56.13	22.53	13.24	8.10
SE-90	31.43	33.69	34.73	0.15	29.26	23.30	37.47	9.97
State	37.44	16.51	45.63	0.42	47.71	12.28	34.37	5.65

- No response.

Table 5. Pasture Stocking Rates (Acres), 2023

	Cow/Calf		Stocker	
	Native	Tame	Native	Tame
NW-10	10.07	1/	9.00	-
WC-20	11.75	10.00	11.83	-
SW-30	14.79	1/	7.40	1/
NC-40	9.01	7.45	5.00	-
C-50	7.67	7.20	3.67	2.33
SC-60	10.09	5.25	8.57	1/
NE-70	12.17	6.20	1/	2.67
EC-80	8.96	6.60	3.27	2.81
SE-90	8.10	7.57	6.38	3.94
State	9.67	7.19	5.66	3.49

- No response.

1/ Insufficient reports to publish.

Table 6a. District Average Native and Tame Pasture Cash Rents

	Native Pasture Cash Rents			Tame Pasture Cash Rents		
	2023	2019	Changes from 2019	2023	2019	Changes from 2019
NW-10	\$18.92	\$18.35	3.15%	1/	\$30.00	2/
WC-20	\$15.97	\$13.74	16.27%	1/	1/	2/
SW-30	\$13.46	\$12.73	5.76%	-	\$15.17	2/
NC-40	\$32.13	\$26.03	23.44%	\$37.69	\$33.89	11.22%
C-50	\$24.79	\$23.72	4.53%	\$30.60	\$35.29	-13.28%
SC-60	\$19.11	\$17.72	7.87%	1/	\$23.64	2/
NE-70	\$32.40	\$25.46	27.23%	\$41.83	\$33.77	23.86%
EC-80	\$31.46	\$26.48	18.80%	\$30.62	\$29.59	3.47%
SE-90	\$25.79	\$25.73	0.26%	\$32.20	\$27.28	18.01%
State	\$24.08	\$21.87	10.10%	\$33.55	\$28.85	16.28%

1/ Insufficient reports to publish.

2/ Percentage change cannot be computed.

Table 6b. District Combined Cash Rents & Tame/Native Rent Ratio

	Combined Average Kansas Cash Rents			Average Tame/Native Rent Ratio		
	2023	2019	Changes from 2019	2023	2019	Changes from 2019
NW-10	\$19.01	\$19.28	-1.37%	2/	163.52%	2/
WC-20	\$15.58	\$13.80	12.86%	2/	1/	2/
SW-30	\$13.46	\$13.19	2.09%	2/	119.16%	2/
NC-40	\$33.45	\$27.44	21.87%	117.31%	130.19%	-9.90%
C-50	\$26.17	\$24.91	5.09%	123.43%	148.78%	-17.04%
SC-60	\$19.28	\$19.23	0.24%	2/	133.40%	2/
NE-70	\$38.05	\$29.62	28.49%	129.11%	132.63%	-2.65%
EC-80	\$31.27	\$27.83	12.36%	97.31%	111.73%	-12.91%
SE-90	\$27.96	\$26.33	6.17%	124.83%	106.05%	17.71%
State	\$26.29	\$23.64	11.18%	139.35%	131.94%	5.62%

-No response.

1/ Insufficient reports to publish.

2/ Percentage change cannot be computed.

Table 7. District Average Rental Rate for Crop Residue Grazing, 2023

	Crop Residue Grazing Rent			
	(\$/Acre)		(\$/Head/Day)	
	Corn	Milo	Corn	Milo
NW-10	8.40	8.00	1.37	1/
WC-20	1/	-	0.50	0.47
SW-30	10.00	8.00	-	-
NC-40	7.83	11.22	0.60	-
C-50	1/	9.25	-	2.83
SC-60	13.00	10.40	-	1/
NE-70	1/	-	1/	1/
EC-80	-	-	1/	1/
SE-90	-	-	-	1/
State	9.67	9.93	0.99	1.01

- No response.

1/ Insufficient reports to publish.

Table 8. District Mode Pasture Size

	Native Mode Pasture Size (Acres)			Tame Mode Pasture Size (Acres)		
	2023	2019	2015	2023	2019	2015
NW-10	320	160	200	320	80	100
WC-20	160	160	80	150	-	-
SW-30	160	160	160	-	160	60
NC-40	160	160	80	40	160	80
C-50	80	160	160	40	160	30
SC-60	140	160	80	50	160	60
NE-70	160	160	80	80	80	80
EC-80	300	160	80	80	80	80
SE-90	160	160	80	40	80	80

- No response.

Table 9. Mode Average Feet of Fence per Acre

	Fence per Acre (Feet/Acre)			
	Native		Tame	
	2023	2019	2023	2019
NW-10	34.20	46.06	1/	45.93
WC-20	47.72	48.70	66.58	45.93
SW-30	26.51	39.30	-	32.67
NC-40	36.10	52.05	79.79	43.10
C-50	40.91	48.42	60.01	33.23
SC-60	62.15	50.38	1/	45.93
NE-70	59.24	46.00	63.58	45.93
EC-80	26.31	46.06	57.94	38.01
SE-90	38.03	40.65	39.54	45.93

- No response.

1/ Insufficient reports to publish.

Table 10a. District Mode Typical Fence Data

	2023		2019		2023		2019	
	Fence Type	Resp.	Fence Type	Resp.	Post Type	Resp.	Post Type	Resp.
NW-10	4-Wire-Barb	16	4-Wire-Barb	10	Treated Wood	18	Treated Wood	7
WC-20	4-Wire-Barb	15	4-Wire-Barb	4	Combination Steel & Wood	12	Combination Steel & Wood	12
SW-30	5-Wire Barb	13	5-Wire Barb	8	Combination Steel & Wood	9	Combination Steel & Wood	11
NC-40	4-Wire Barb	20	5-Wire Barb	20	Combination Steel & Wood	24	Combination Steel & Wood	22
C-50	5-Wire Barb	26	5-Wire Barb	22	Steel	31	Combination Steel & Wood	16
SC-60	5-Wire Barb	24	5-Wire Barb	17	Steel	16-Tie	Combination Steel & Wood	16
NE-70	5-Wire Barb	20	5-Wire Barb	11	Combination Steel & Wood	20	Combination Steel & Wood	12
EC-80	5-Wire Barb	29	5-Wire Barb	23	Steel	39	Steel	20
SE-90	5-Wire Barb	32	5-Wire Barb	24	Steel	49	Steel	24

Resp. = Number of responses.

Table 10b. District Mode Typical Fence Data

	2023		2019		2023		2019		2023		2019	
	Post Spacing		Post Spacing		Pasture Size Cross Fenced		Pasture Size Cross Fenced		Fence Life		Fence Life	
	(Feet)	Resp.	(Feet)	Resp.	(Acres)	Resp.	(Acres)	Resp.	(Years)	Resp.	(Years)	Resp.
NW-10	16	6	15	3-Tie	No Pasture	17	No Pasture	7	30	5	35	4
WC-20	16	8	16	5	No Pasture	8	320-640	10	40	4	30	6-Tie
SW-30	12	5	12	3	640+	7	No Pasture	3-Tie	50	7	30	5-Tie
NC-40	12	7-Tie	12	5	No Pasture	22	No Pasture	10	50	14	40	6-Tie
C-50	16	8	12	6-Tie	No Pasture	25	No Pasture	19	50	14	50	14
SC-60	16	4-Tie	15	5	No Pasture	9	No Pasture	8	30	12	50	12
NE-70	12	10	12	7	No Pasture	12	No Pasture	12	50	9	50	9
EC-80	12	3-Tie	16	9	No Pasture	14	No Pasture	16	30	17	50	14
SE-90	12	7	16	7	No Pasture	11	No Pasture	12	50	8-Tie	30	9

Table 11. Average Pasture Maintenance Cost, 2023

Cost	Native (\$/Acre)	Tame (\$/Acre)
Fence Materials	4.24	2.56
Fence Labor	5.41	3.51
Water Supply	4.89	1.75
Chemicals for Weed Control	7.31	9.78
Application	3.63	6.53
Burning	2.08	-
Other	8.82	-
Reported Total Maintenance Cost	11.09	19.28

- No response.

Table 12a. Average Landlord Percentage Participation in Costs (%), 2023

Districts	Fence Material Costs (%)	Fence Labor Costs (%)	Fertilizer (%)	Water Supply Cost (%)
NW-10	82.14	43.75	0.00	69.32
WC-20	85.00	7.14	0.00	61.11
SW-30	78.57	1/	-	50.00
NC-40	97.22	10.00	6.67	53.08
C-50	89.51	43.75	4.71	52.10
SC-60	80.00	15.63	0.00	53.33
NE-70	83.33	35.42	19.33	50.00
EC-80	64.52	36.36	35.00	73.33
SE-90	85.20	41.14	0.00	45.53
State	82.45	32.80	12.18	58.09

Table 12b. Average Landlord Percentage Participation in Costs (%), 2023

Districts	Brush & Weed Control Chemicals (%)	Application Costs (%)	Burning Costs (%)	Other Costs (%)	Total Pasture Maintenance Costs (%)
NW-10	46.88	20.00	0.00	0.00	9.86
WC-20	58.33	10.00	0.00	62.50	25.00
SW-30	1/	-	-	-	21.50
NC-40	65.56	16.67	30.00	100.00	36.15
C-50	50.00	42.00	13.33	100.00	49.55
SC-60	63.16	38.89	21.88	100.00	51.74
NE-70	51.28	42.74	19.44	0.00	30.00
EC-80	64.00	58.00	23.91	0.00	57.60
SE-90	56.52	31.58	6.32	0.00	53.42
State	56.61	38.20	16.31	26.25	43.08

- No response.

1/ Insufficient reports to publish.